

Table 1 p17

Location	WEAU	Sequence	Immunogen	Species(HLA)	References
p17(18-27 LAI)	p17(18-27)	KIRLRPGGKK	?	human(B27)	[Brander & Walker(1996)] • D. Lewinsohn, pers. comm.
p17(18-26 IIIB)	p17(18-26)	KIRLRPGGK	HIV-1 infection	human(A3)	[Wilkes et al.(1996)] • Epitope defined in the context of the Pediatric AIDS Found. ARIEL project mother-infant HIV transmission study • KIRLRPGGR and RIRLRPGGR, naturally occurring variants, were found in mother, and are not recognized
p17(18-26 LAI)	p17(18-26)	KIRLRPGGK	HIV-1 infection	human(A3.1)	[Harrer et al.(1996b)]
p17(18-42 IIIB)	p17(18-42)	KIRLRPGGKKKYKLK-HIVWASRELE	HIV-1 infection	human(A3)	[Jassoy et al.(1992)] • Epitope recognized by CTL clone derived from CSF
p17(18-42 BH10)	p17(18-42)	KIRLRPGGKKKYKLK-HIVWASRELE	HIV-1 infection	human(Bw62)	[Johnson et al.(1991)] • Gag CTL response studied in three individuals; epitopes mapped by peptide competition
p17(18-42 PV22)	p17(18-42)	KIRLRPGGKKKYKLK-HIVWASRELE	HIV-1 infection	human(A3)	[Jassoy et al.(1993)] • HIV-1 specific CTLs release γ -IFN, and α - and β -TNF
p17(19-27 LAI)	p17(19-27)	IRLRPGGKK	?	human(B27)	[Brander & Walker(1996)] • D. Lewinsohn, pers. comm.
p17(20-29 IIIB)	p17(20-29)	RLRPGGKKKY	HIV-1 infection	human(B42)	[Wilkes et al.(1996)] • Epitope defined in the context of the Pediatric AIDS Found. ARIEL project mother-infant HIV transmission study • RLRPGGKKRY, a naturally occurring variant, was found in non-transmitting mother and is recognized • Binds HLA-A3 and Bw62 as well
p17(20-29)	p17(20-29)	RLRPGGKKKY	HIV-1 infection	human(A3.1)	[Brander & Walker(1995)] • Unpublished, C. Jassoy and Beatrice Culman, pers comm
p17(20-29 LAI)	p17(20-29)	RLRPGGKKKY	?	human(Bw62)	[McMichael & Walker(1994)] • Review of HIV CTL epitopes; defined as minimal peptide by titration curve • Also P. Johnson, per comm
p17(21-35)	p17(21-35)	LRPGGKKKYKLKHIV	?	human(B8)	[Nixon & McMichael(1991)] • Two CTL epitopes defined
p17(21-35)	p17(21-35)	LRPGGKKKYKLKHIV	HIV-1 infection	human(not B8)	[van Baalen et al.(1996)] • Unknown HLA specificity, but not B8
p17(24-32 LAI)	p17(24-32)	GGKKKYKLK	HIV-1 infection	human(B8)	[Sutton et al.(1993)] • Exploration of HLA B8 binding motif through peptide elution; this peptide was studied in detail
p17(24-32 LAI)	p17(24-32)	GGKKKYKLK	HIV-1 infection	human(B8)	[Rowland-Jones et al.(1993)] • Study of an individual with partially defective antigen processing

HIV CTL Epitopes

Location	WEAU	Sequence	Immunogen	Species(HLA)	References
p17(24-32)	p17(24-32)	GGKKKYKLK	HIV-1 infection	human(B8)	[Klenerman et al.(1994)]
	• Naturally occurring variants GGKKKYQLK and GGKKRYRLK may act as antagonists				
p17(24-32)	p17(24-32)	GGKKKYKLK	HIV-1 infection	human(B8)	[Klenerman et al.(1995)]
	• Naturally occurring antagonist GGKKKYQLK found in viral PBMC DNA and RNA				
p17(24-32)	p17(24-32)	GGKKKYKLK	HIV-1 infection	human(B8)	[Nowak et al.(1995)]
	• Longitudinal study of CTL response; GGRKKYKLK binds but not reactive				
p17(24-31 LAI)	p17(24-31)	GGKKKYKL	HIV-1 infection	human(B8)	[Reid, submitted(1996)]
	• 8-mer, not 9-mer, established by crystallization studies, peptide titration equivocal, S. Rowland-Jones, per. comm.				
p17(24-31 LAI)	p17(24-31)	GGKKKYKL	HIV-1 infection	human(B8)	[Price et al.(1997)]
	• A weak CTL response to the index peptide was observed in an HLA B8+ infected individual				
	• Sequences from the earliest available time point showed that a variant at position 5, an anchor residue, GGKKQYKL, was present				
p17(25-35 SF2)	p17(24-35)	GGKKKYKLKHIV	HIV-1 infection	human(B8)	[Phillips et al.(1991)]
	• Longitudinal study of CTL escape mutants				
p17(28-36 LAI)	p17(28-36)	KYKLKHIVW	?	human(A24)	[Brander & Walker(1996)]
	• D. Lewinsohn, pers. comm.				
p17(36-44 LAI)	p17(36-44)	WASRELERF	?	human(B35)	[Brander & Walker(1996)]
	• P. Goulder, submitted				
p17(69-93 BH10)	p17(69-93)	QTGSEELRSLYNTVA-TLYCVHQRIE	HIV-1 infection	human(A2)	[Johnson et al.(1991)]
	• Gag CTL response studied in three individuals; epitopes mapped by peptide competition				
p17(71-79 LAI)	p17(71-79)	GSEELRSLY	?	human(A1)	[Brander & Walker(1996)]
	• P. Goulder, pers. comm.				
p17(74-82 LAI)	p17(74-82)	ELRSLYNTV	?	human(B8)	[Brander & Walker(1996)]
	• P. Goulder, submitted				
p17(76-84)	p17(77-85)	SLYNTVATL	none	human(A*0201)	[van der Burg et al.(1996)]
	• Slow dissociation rate is associated with immunogenicity				
	• CTL generated by <i>in vitro</i> stimulation of PBMC driven from uninfected individual				
p17(77-85 LAI)	p17(77-85)	SLYNTVATL	HIV-1 infection	human(A2)	[Parker et al.(1992), Parker et al.(1994)]
	• Examined in the context of motifs important for HLA A2 binding				
p17(77-85 LAI)	p17(77-85)	SLYNTVATL	HIV-1 infection	human(A2)	[McMichael & Walker(1994)]
	• Review of HIV CTL epitopes; defined as minimal peptide by titration curve				
p17(77-85)	p17(77-85)	SLYNTVATL	HIV-1 infection	human(A2)	[Tsomides et al.(1994)]
	• CTL clones recognize naturally processed peptide; peptide abundance corresponded to level of CTL killing				

HIV CTL Epitopes

Location	WEAU	Sequence	Immunogen	Species(HLA)	References
p17(84-92)	p17(84-92)	TLYCVHQRI	HIV-1 infection	human(A11)	[Brander & Walker(1995)]
	• Epitope defined in the context of the Pediatric AIDS Found. ARIEL project mother-infant HIV transmission study				
p17(88-115 ARV)	p17(88-115)	VHQRIEIKDTKEALD-KIEEQNKSKKKA	HIV-1 infection	human(A2)	[Achour et al.(1990)]
	• B cell epitope HGP-30 also serves as a CTL epitope				
p17(93-101)	p17(93-101)	EIKDTKEAL	no CTL shown	human(B8)	[DiBrino et al.(1994b)]
	• Examined in the context of motifs important for HLA B8 binding, predicted epitope based on Achour et al. above				
p17(121-132 HXB2R)	p17(121-132)	DTGHSNQVSQNY	HIV-1 infection	human(A33)	[Buseyne et al.(1993)]
	• Clustering of Gag p24 CTL epitopes recognized in 29 HIV infected people				
p17(124-132 LAI)	p17(124-132)	NSSKVSQNY	HIV-1 infection	human(B35)	[McMichael & Walker(1994)]
	• Review of HIV CTL epitopes; defined as minimal peptide by titration curve				
p17(124-132 LAI)	p17(124-132)	NSSKVSQNY	HIV-1 or -2 infection	human(B35)	[Rowland-Jones et al.(1995)]
	• Established by titration; HIV-2 equivalent PPGSKGGNY also recognized with B35 by CTL from HIV-2 seropositives				